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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/766,468

01/29/2004

Kheng Chiong Tay

07044.0002

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07/18/2006

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EXAMINER

REAMES, MATTHEW L

ART UNIT

PAPER NUMBER

2891

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/766,468	<b>Applicant(s)</b> TAY ET AL.	
	<b>Examiner</b> Matthew L. Reames	<b>Art Unit</b> 2891	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 11 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-4,6,7 and 9-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4,6,7 and 9-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Objections*

1. Claim 7 is objected to because of the following informalities: other side surfaces lacks antecedent basis from claim 1. Appropriate correction is required.

For the sake of compact prosecution it shall be understood that claim 7 should be dependent on claim 6.

### *Claim Rejections - 35 USC § 102*

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim <sup>2, 4</sup>1 is rejected under 35 U.S.C. 102(b) as being anticipated by Shaddock (US 2002/0163001).

- a. As to claim 1, 2, and 4, Shaddock teaches An optoelectronic component based on a surface mount technology, the onto electronic component comprising: an electrically conductive frame to form a base for an assembly (see fig. 4 items 116, 114, 36, and 118); an opaque plastic material (see fig. 4 items 40 and 42), to form a housing for the assembly, a cavity formed within the plastic material (see fig. 4 item 44); at least one protrusion extending from a side surface of the housing to provide heat dissipation (see fig. 4 items 116 and 118), both of which inherently provide some thermal dissipation, since they are both thermally conductive;

It should further be noted while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function, because apparatus claims cover what a device is, not what a device does (Hewlett-Packard Co. v. Bausch & Lomb Inc., 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990)). Thus, if a prior art structure is capable of performing the intended use as recited in the preamble, or elsewhere in a claim, then it meets the claim.;

and at least one optoelectronic chip mounted in the cavity (see fig. 4 item 20), wherein the base protrudes from a middle portion to a bottom surface of the optoelectronic component (see fig. 4 item 116, 118, 36, 114); the bottom surface of the optoelectronic component providing external mounting connection terminals (see bottom portions of 116 and 118). Further wherein 44 is filled with transparent resin (see item 44), and wherein the base is connected to the chip via a metallic wire (see fig. 4 items 128 or 130). Further still where the mounting connection terminals maybe used to connect to external sub-systems (see note above about functional language).

b. As to claim 9, Shaddock teaches that the base materials (items 116, 118, 36, 114) serve as the leads (see description), therefore no other leads are required. It is noted the definition of base/lead material is arbitrary. Since

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there is no industry standard to distinguish the two and applicant has provided no clear definition Examiner is interpreting 116 and 118 as base material.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 6, 7, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaddock in view of Hsu (US 2004/0000727).

a. As to claim 6 and 7, Shaddock teaches the device as described in claims 1-4, and 9. Shaddock does not teach wherein the base protrudes from another pair of sides.

However Hsu teaches an array of encapsulated LEDs (see figs. 4-6). Hsu further teaches the base material protrudes from all four sides (see eg. fig. 10 and 12). Hsu further teaches this allows easy manufacture of arbitrary cells (see abstract).

Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to have provided electrical connections on all four sides, protruding from the plastic material on each side.

One would have been so motivated in order to allow for arbitrary sized cell arrays.

- b. As to claim 11, Shaddock teaches wherein the cavity is filled with a transparent resin (see item 44).
- c. As to claim 12, Shaddock teaches wherein the base material 116 and 118 serve as leads.
- d. As to claim 13, Shaddock teaches wherein the LED chip is connected via metal wire (see paragraph 13).
- e. As to claim 14, Shaddock teaches that the external mounting maybe used to connect to sub-systems

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

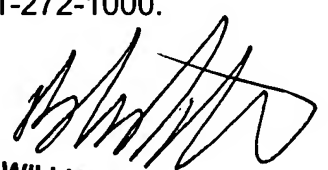
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew L. Reames whose telephone number is (571)272-2408. The examiner can normally be reached on M-Th 6:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William B. Baumeister can be reached on (571)272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MLR



**B. WILLIAM BAUMEISTER**  
**SUPERVISORY PATENT EXAMINER**